

WHAT IS CLAIMED IS:

1. A colored sunscreen composition exhibiting both UV absorption and skin coloring properties, the colored sunscreen composition comprising a colored nanostructure, the colored
5 nanostructure comprising a particulate sunblock agent in intimate relationship with a coloring agent or a colored polymeric nanomatrix and being reactive to skin or capable of being immobilized onto the skin.
2. A colored nanostructure comprising a particulate sunblock agent chemically attached to
10 a coloring agent, and wherein the colored nanostructure is reactive to skin or capable of being immobilized onto the skin.
3. A colored nanostructure comprising a particulate sunblock agent in intimate relationship
15 with a colored polymeric nanomatrix, wherein the colored polymeric nanomatrix comprises a coloring agent chemically attached to a polymeric nanomatrix, and wherein the colored nanostructure is reactive to skin or capable of being immobilized onto the skin.
4. A colored nanostructure according to claim 3 wherein the particulate sunblock agent is
20 chemically attached to the colored polymeric nanomatrix.
5. A colored nanostructure according to claim 3 wherein the colored polymeric nanomatrix
comprises a particulate polymeric nanomatrix.
6. A colored nanostructure according to claim 5 wherein the particulate polymeric
25 nanomatrix is a protein or a protein derivative.
7. A colored nanostructure according to claim 6 wherein the protein or protein derivative is
further grafted with silicone.
8. A colored nanostructure according to claim 3 wherein the colored polymeric nanomatrix
30 comprises a non-particulate polymeric nanomatrix.
9. A colored nanostructure according to claim 8 wherein the non-particulate polymeric
nanomatrix is selected from the group consisting of a linear polymer, a graft copolymer, a comb

polymer, a branched polymer, a highly branched polymer, a star polymer, a dendrimer, and a lightly crosslinked polymer network.

10. A colored nanostructure according to claim 3 wherein the colored polymeric nanomatrix
5 comprises silicone.

11. A colored nanostructure according to claim 3 wherein the colored polymeric nanomatrix
comprises amphiphilic block copolymers.

10 12. A colored nanostructure according to claim 3 wherein the colored polymeric nanomatrix
is in the form of a nanoscopic polymer network.

13. A colored nanostructure according to claim 3 wherein the colored polymeric nanomatrix
is in the form of a polymer nanosphere.
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14. A colored nanostructure according to claim 3 wherein the coloring agent comprises
melanin.

15. A colored nanostructure according to claim 3 wherein the composition further
20 comprises an organic UV absorber chemically attached to the particulate sunblock agent or to
the colored polymeric nanomatrix.

16. A colored nanostructure according to claim 3 which comprises skin-reactive functional
groups.
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17. A colored nanostructure according to claim 3 which comprises a polymer exhibiting
UCST or LCST behavior in a physiologically acceptable aqueous solution.

18. A colored nanostructure according to claim 3 which comprises functional groups that
30 will react with a mordant.

19. A colored nanostructure according to claim 3 which comprises functional groups that
will react with a cationic fixing agent.

20. A colored nanostructure according to claim 3 which comprises functional groups that will react with an anionic fixing agent.

5 21. A colored nanostructure according to claim 3 which comprises functional groups that will react with a fixing agent that relies on hydrophobic interactions or on hydrogen bonding.

22. A method of treating skin to provide improved retention of sunblock and coloring agents on the skin, the method comprising:

10 applying a colored sunscreen composition to the skin under a first set of conditions, the colored sunscreen composition comprising a colored nanostructure, the colored nanostructure comprising a particulate sunblock agent in intimate relationship with a coloring agent or a colored polymeric nanomatrix and being reactive to skin or capable of being immobilized onto the skin; and

15 changing the conditions to a second set of conditions such that the colored nanostructure is attached to or immobilized onto the skin.